PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic control signal at the intersection of MD 198 and Maryland City Plaza in Anne Arundel County, Maryland.
MD 198 is considered to run in an east/west direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA six (6) phase, full-traffic-actuated mode. There will be exclusive left turn phases for both the east and westbound movements of MD 198.
The MD 198 through movements will operate concurrently. The Maryland City Plaza and hotel entrance through movements will currently.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, video detection equipment, battery back-up, and (2) four-channel rack mounted time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

CONTACT LIST

The contact persons for District #5 are as follows:

Ms. Kim Tran
Assistant District Engineer - Traffic
410-841-1019

Mr. Mark Coblentz
Assistant District Engineer - Utility
410-841-1031

Mr. Chuck E. George
Assistant District Engineer - Maintenance
410-841-1013

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
Mark Lynch
Baltimore Gas and Electric Company
7317 Parkway Drive South
Hanover, Maryland 21076
410-859-9054
WMS # 1270620

EQUIPMENT LIST

A. S.H.A. furnished equipment material.

None.

B1. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity Lump Sum	Units	Specification Section	Description
1	EA	818	27 ft. steel twin mast arm pole with 50 ft. and 70 ft. mast arms
1	EA	818	27 ft. steel mast arm pole with a 50 ft. mast arm
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, video detection equipment and three (2) four-channel loop detector amplifiers (Note: Controller and cabinet shall be purchased from Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650).
4	EA	---	Video detection camera equipment with specified cables (Three - 250, One - 400 ft.)
8	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, three section (RA,YA,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	12 in., one way three section (RA,YA,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors
3	EA	813	30 in. x 36 in R 3-5L sign with mast arm mounting hardware.
1	EA	813	30 in. x 36 in. R3-6(Mod0 with mast arm mounting hardware.
2	EA	813	24 in. x 30 in. R 4-7 sign for ground mounting.
4	EA	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.
2	EA	806	15 ft. luminaire arm.
2	EA	---	250 W H.S.P lamp and luminaire.

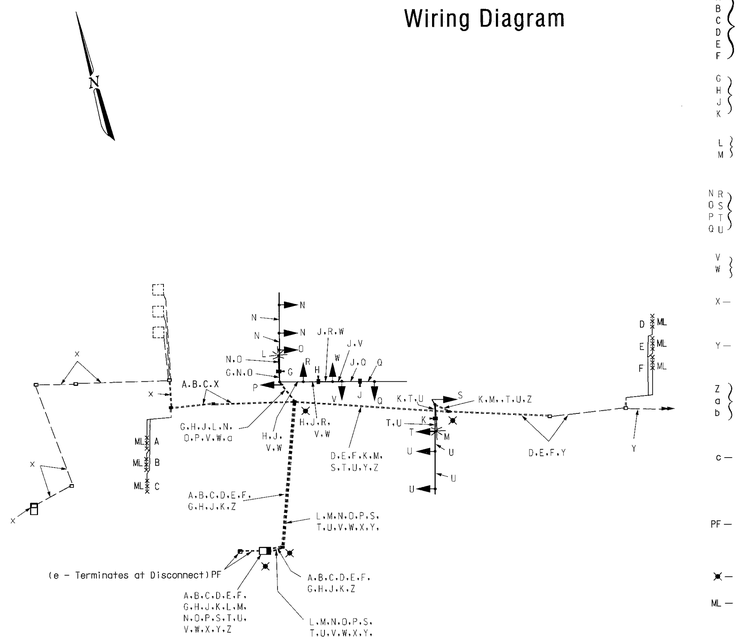
B1. Equipment to be furnished and installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
3	CY	205	Test pit excavation.
5	EA	811	Handhole.
225	LF	815	Sawcut for signal loop detector.
75	LF	810	1-conductor electrical cable (No. 4 A.W.G.) (3 pieces).
400	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
1375	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
375	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
250	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
1030	LF	---	12-pair Voice grade Telemetry Interconnect Cable (NO: 19 A.W.G.)
20	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
20	LF	805	2.5 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
475	LF	805	3 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
260	LF	805	4 in. polyvinyl chloride (Schedule 80) electrical conduit - bored.
30	LF	805	4 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
8.5	CY	801	Concrete foundation for traffic signal equipment.
4	EA	804	Ground rod - ¾in. diameter x 10 ft. length.
1	EA	807	Electrical utility service equipment (120/240 V, one phase, three wire system) for a underground electrical service per MD-SHA Typical 807.05-01
175	LF	549	24 in. wide HAPPTPM - white for stop line.
125	LF	549	5 in. wide white pavement marking (paint)
450	LF	549	5 in. wide yellow pavement marking (paint).
60	LF	812	4 in. x 4 in. wood sign support.
165	LF	812	4 in. 6 in. wood sign support.
2	EA	---	Relocate ground mounted sign.
6	LF	806	Micro-loop probe (set of 3) with 750 ft. lead-in cable.
100	EA	---	Remove existing pavement markings by grinding.
1	EA	---	Interconnect splice.
Lump Sum	LS	---	Relocate existing interconnect cable (approx1350 LF)
Lump Sum	LS	---	Remove existing traffic signal equipment.
Lump Sum	LS	---	As-built for S.H.A. (on CADD).

Phase Chart

	1	2	3	4	5	6	7	8	9	10	11	12	
Phase 1 & 5	◄G—	◄G—	R	R	◄G—	◄G—	R	R	R	R	R	R	
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6													
Phase 1 & 6	◄G—	◄G—	G	G	◄R—	◄R—	R	R	R	R	R	R	
1 Change	◄Y—	◄Y—	G	G	◄R—	◄R—	R	R	R	R	R	R	
Phase 2 & 5	◄R—	◄R—	R	R	◄G—	◄G—	G	G	R	R	R	R	
5 Change	◄R—	◄R—	R	R	◄Y—	◄Y—	G	G	R	R	R	R	
Phase 2 & 6	◄R—	◄R—	G	G	◄R—	◄R—	G	G	R	R	R	R	
2 & 6 Change	◄R—	◄R—	Y	Y	◄R—	◄R—	Y	Y	R	R	R	R	
Phase 4 & 8	◄R—	◄R—	R	R	◄R—	◄R—	R	R	G	G	G	G	
4 & 8 Change	◄R—	◄R—	R	R	◄R—	◄R—	R	R	Y	Y	Y	Y	
Flashing Operation	◄FL/R—	◄FL/R—	FL/Y	FL/Y	◄FL/R—	◄FL/R—	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	

Wiring Diagram



A, B, C, D, E, F — Micro-loop Detector Lead-In Cable

G, H, J, K — Video Detector Cable

L, M — 2-Conductor Tray Cable (No. 12 A.W.C.)

N, O, P, Q, R, S, T, U — 5-Conductor Electrical Cable (No. 14 A.W.G.)

V, W — 7-Conductor Electrical Cable (No. 14 A.W.G.)

X — 12-Pair Voice Grade Telemetry Interconnect Cable (No. 19 A.W.G.) (MD 198 - Whiskey Bottom Rd./Old Annapolis Rd. Run)

Y — Existing Interconnect Cable (MD198 - Red Clay Rd. Run)

Z, a, b — Bare Copper Ground Wire (No. 6 A.W.G.)

c — 1-Conductor (No. 4 A.W.G.) (3 pieces) for Traffic Signal Electrical Service

PF — Proposed Underground Electrical Service By BG&E

Proposed Grounding Rod

ML — Micro-loop Detector Probe

The Traffic Group
The Traffic Group, Inc.
410-931-6600
Fax 410-931-6601

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)

MD 198 at Maryland City Plaza

DRAWN BY:	F. Haeckel	F.A.P. NO.	N/A	TS NO.	SHEET NO.
CHECKED BY:		S.H.A. NO.	BW996M82	441-GI	
SCALE:	N/A	COUNTY:	Anne Arundel	T.I.M.S. NO.	
DATE:	March 18, 2005	LOG MILE:	0219801.27	H-001	2 OF 2

F:\2003\2003-0403\Dwg\G02.dgn 3/18/2005